

Table 2a-1: "C" FACTORS FOR CROPLAND IN MISSOURI<sup>i</sup>

CROP SEQUENCE	CHISEL -- DISK -- RIDGE <sup>ii</sup>									NO-TILL		
	FALL PLOW	SPRING PLOW	% COVER AFTER PLANTING									
			20%	30%	40%	50%	60%	70%	60%	70%	80%	90%
Corn Silage after Corn Silage	.48	.40	.33									
Corn Grain after Corn Silage <sup>iii</sup>	.45	.31	.29									
Corn Grain after Corn Grain <sup>iv</sup>	.36	.29	.21	.18	.15	.12	.09	.08	.08	.06	.05	.03
Corn Grain after Small Grain <sup>v</sup>	.37	.30	.23	.20	.16	.13	.10	.09	.09	.06	.05	.03
Corn Grain after Meadow <sup>vi</sup>	.17	.13	.12	.10	.09	.08	.06	.04	.03	.02	.02	.01
Corn 2nd year after Meadow <sup>vii</sup>	.32	.24	.19	.16	.15	.14	.12	.09	.05	.04	.03	.02
Soybeans after Corn Grain												
Wide Row (>20 inches)	.40	.33	.23	.20	.16	.13	.12	.11	.10	.07	.05	.03
Drilled (<20 inches)	.30	.25	.18	.15	.13	.12	.11	.10	.08	.06	.04	.03
Soybeans after Small Grain												
Wide Row (>20 inches)	.43	.34	.26	.23	.17	.14	.13	.12	.09	.06	.04	.03
Drilled (<20 inches)	.32	.23	.19	.16	.14	.12	.12	.11	.08	.06	.04	.03
Soybeans after Meadow <sup>viii</sup>												
Wide Row (>20 inches)	.20	.15	.12	.10	.09	.08	.06	.05	.03	.02	.01	.01
Drilled (<20 inches)	.15	.12	.11	.09	.08	.07		.04	.03	.02	.01	.01
Soybeans 2nd year after Meadow <sup>x</sup>								.05				
Wide Row (>20 inches)	.36	.27	.18	.15	.12	.10		.08	.08	.06	.04	.03
Drilled (<20 inches)	.27	.22	.15	.13	.11	.10	.09	.08	.08	.06	.04	.03
Small Grain after:								.09				
Corn Grain <sup>x</sup>	.12		.09	.08	.07	.06		.04	.04	.03	.02	.02
Corn Silage <sup>xi</sup>	.17		.16				.05		.13			
Small Grain after Small Grain		.15		.12	.11	.09	.08			.05	.04	.03
Small Grain after Meadow												
1st year after	.08		.07			.04					.03	
2nd year after	.12		.10			.07					.04	

<b>AFTER SOYBEANS</b>										20%	30%	40%	50%	80% <sup>xii</sup>
Corn Grain after Soybeans <sup>xiii</sup>	.42	.36	.35	.30	.25	.20				.25	.19	.14	.13	
Corn Grain after Soybeans with winter cover <sup>xiv</sup>	.41	.30	.24	.22	.17	.12				.17	.13	.12	.10	.07 <sup>xv</sup>
Soybeans after Soybeans														
Wide Row (>20 inches)	.48	.41	.37	.35	.25	.20				.26	.20	.16	.15	
Drilled (<20 inches)	.38	.32	.31	.30	.23	.19				.20	.16	.13	.12	
Soybeans after Soybeans with winter cover (>20 inches)	.48	.32	.27	.24	.19	.14				.18	.15	.12	.11	.08 <sup>xvi</sup>
Small Grain after Soybeans <sup>xvii</sup>	.14	.12	.11	.10	.09	.08				.09	.07	.05	.03	

**Wheat/Soybeans (Drilled and Double Cropped)<sup>xviii</sup>**

Tillage for Beans after Wheat				Tillage for Beans after Wheat					
		Plow	Chis/disk	No-till		Plow	Chis/disk	No-till	
<b>Tillage for Wheat after Soybeans</b>	<b>Plow</b>	.28	.18	.17	<b>Tillage for Wheat after Corn Silage</b>	Plow	.30	.20	.19
	<b>Chis//disk</b>	.21	.11	.10		Chis//disk	.29	.19	.18
	<b>No-till</b>	.17	.07	.06		No-till	.27	.17	.16

Tillage for Beans after Wheat				
		Plow	Chis/disk	No-till
<b>Tillage for Wheat after Corn Grain</b>	<b>Plow</b>	.27	.17	.16
	<b>Chis//disk</b>	.19	.09	.08
	<b>No-till</b>	.15	.05	.04

<b>Meadow (Full Year -- Established)</b>	
Grass-Legume	.004
Legume	.020

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- <sup>i</sup> Values in this table are based on a high level of management with yields equal to or exceeding the following: corn – 100 bu/ac; soybeans – 40 bu/ac; wheat – 45 bu/ac; oats – 60 bu/ac; meadow – 3 ton/ac. For medium level of management multiply factors by 1.2.
- <sup>ii</sup> Values for chisel and disk systems are for one fall primary tillage operation and zero to two secondary tillage operations prior to planting, depending on the type of crop residue and the percent ground cover desired after planting. For primary tillage in the spring and ridge planting up and down the hill, multiply the values by 0.8. For ridge planting on the contour, multiply the values by 0.6. Ridge planting is applicable only for row crops following row crops.
- <sup>iii</sup> For drilled Milo, multiply values by 0.80.
- <sup>iv</sup> For drilled Milo, multiply values by 0.80.
- <sup>v</sup> For drilled Milo, multiply values by 0.80.
- <sup>vi</sup> Values are based on sod or a grass-legume mixture consisting of at least 50% grass and has been established at least one full growing season. If meadow stand is primarily legume, multiply factor by 1.2.
- <sup>vii</sup> Values are based on sod or a grass-legume mixture consisting of at least 50% grass and has been established at least one full growing season. If meadow stand is primarily legume, multiply factor by 1.2.
- <sup>viii</sup> Values are based on sod or a grass-legume mixture consisting of at least 50% grass and has been established at least one full growing season. If meadow stand is primarily legume, multiply factor by 1.2.
- <sup>ix</sup> Values are based on sod or a grass-legume mixture consisting of at least 50% grass and has been established at least one full growing season. If meadow stand is primarily legume, multiply factor by 1.2.
- <sup>x</sup> The same factors are applicable for both small grain with and without meadow seedings.
- <sup>xi</sup> Factors for disk and no-till are for a tillage system with  $\leq$  20% residue on the surface after planting.
- <sup>xii</sup> Percentages apply only to crops following soybeans.
- <sup>xiii</sup> For drilled Milo, multiply values by 0.80.
- <sup>xiv</sup> For drilled Milo, multiply values by 0.80.
- <sup>xv</sup> Assuming 80% ground cover by no-tilling into a winter cover crop aerially seeded before leaf drop and before September 15.
- <sup>xvi</sup> Assuming 80% ground cover by no-tilling into a winter cover crop aerially seeded before leaf drop and before September 15.
- <sup>xvii</sup> The same factors are applicable for both small grain with and without meadow seedings.
- <sup>xviii</sup> When beans are planted wide row after plowing, add 0.04 to the given C value. For chisel/disk and no-till, use same values as for drilled beans.